

Amendments to the Drawings:

The drawing sheets attached in connection with the above-identified application containing Figures 3, 4, 8, 9, 10(a), 10(b), 11(a), 11(b) and 11(c) are being presented as new drawing sheets to be substituted for the previously submitted drawing sheets. Figures 3, 9, 10(a), 10(b), 11(a), 11(b) and 11(c) have been amended.

The specific changes which have been made to the Figures are as follows:

Minor typographical errors in Figure 3 have been amended. Specifically, reference numeral 54b has been changed to 54d, reference numeral 54b' has been changed to 54d', and reference numeral 54d has been changed to 54b.

Figures 9, 10(a), 10(b), 11(a), 11(b) and 11(c) have been amended to include the label "Prior Art."

REMARKS

Claims 1-11 were pending in the application. Claims 1, 10 and 11 have been amended. Claims 2 and 7 have been canceled. Claims 12 and 13 have been added. Therefore, claims 1 and 3-13 are now pending in the application. Reconsideration of the application is requested for at least the reasons that follow.

The Examiner's acknowledgement of the claim for foreign priority and of the Information Disclosure Statements filed November 25, 2003 and June 9, 2004 is greatly appreciated.

Specification

The Office Action objects to the specification, specifically the title, for failing to be descriptive. The title has been amended where appropriate.

Drawings

Figure 3 has been amended to correct minor typographical errors in the listing of the reference numerals.

The Office Action objects to Figures 9, 10(a), (b) and 11(a)-11(c) for failing to include a legend, such as "Prior Art." Figures 9, 10(a), (b) and 11(a)-11(c) have been amended where appropriate. Reconsideration and withdrawal of the objection is respectfully requested.

Claim Objections

The Office Action objects to claim 7. Claim 7 has been canceled and, therefore, the objection is moot.

Background

The application discloses a load sensor with a half-bridge circuit in which the load sensor can measure the variation in load, with little or no influence due to temperature variation. The cancellation of resistance due to temperature variation is accomplished by utilizing a pair of strain gauges on each side of the bridge circuit. None of the cited prior art discloses such a feature.

Claim Rejections

Claims 1-11 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,039,344 (“Mehney”) and U.S. Patent No. 6,407,350 (“Blakesley”). Reconsideration and withdrawal of the rejection is respectfully requested for at least the following reasons.

The rejection of amended claim 1 should be withdrawn because the references, taken together or separately, fail to disclose, teach or suggest each and every element of the claims. For example, Mehney and Blakesley do not disclose, teach or suggest that “the bridge circuit is configured to include a pair of strain gauges on each side of the bridge circuit,” as called for in claim 1. Mehney merely discloses a full bridge circuit with a single strain gauge on each side of the circuit. *See Mehney at Fig. 3.* Blakesley fails to cure the deficiencies of Mehney. Therefore, reconsideration and withdrawal of the rejection of claim 1 is respectfully requested.

Claims 3-6, 8-9 and new claim 12 depends from claim 1 and are allowable therewith, for at least the reasons set forth above, without regard to the further patentable subject matter set forth in these dependent claims.

Independent claims 10 and 11 contain recitations similar to claim 1. For example, amended claims 10 and 11 call for “the bridge circuit [being] configured to include a pair of strain gauges on each side of the bridge circuit.” Reconsideration and withdrawal of the rejection of claims 10 and 11 is respectfully requested.

New claim 13 calls for a load sensor that includes “first and second flexible, insulating substrate layers and a conductive material, the conductive material being positioned between the first and second flexible, insulating substrate layers such that the first and second flexible, insulating substrate layers extend for the entire length of the conductive material.” Mehney does not disclose first and second flexible, insulating substrate layers with a conductive material positioned between the layers. Rather, Mehney does not even explicitly disclose an insulating substrate. Mehney merely states that the strain gauges 81, 82, 83, 84 are mounted on the mounting member 20, which is steel, or aluminum. *See Mehney at Col. 2, line 63 to Col. 3, line 20; and Fig. 2.* The Examiner appears to cite Blakesley to show that insulative layers are inherent. Blakesley discloses strain gauge resistors (50A, 52A) mounted

on an insulative layer (55), which in turn is mounted on a metal substrate (20, 22). However, Blakesley fails to show a conductive material "positioned between the first and second flexible, insulating substrate layers," nor the layers extending "for the entire length of the conductive material," as called for in claim 13. Therefore, claim 13 is respectfully submitted to be in condition for allowance.

Conclusion

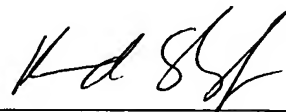
Favorable reconsideration of the application, as amended, is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date 11/23/05

By 

FOLEY & LARDNER LLP
Customer Number: 22428
Telephone: (202) 672-5582
Facsimile: (202) 672-5399

Howard N. Shipley
Attorney for Applicant
Registration No. 39,370